

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-14 are pending in the present application. Claims 1-14 are amended by the present amendment. Claim amendments find support in the specification as originally filed, at least at page 17, lines 8-10. Thus, no new matter is added.

In the outstanding Official Action, Claim 7 was rejected under 35 U.S.C. § 112, second paragraph; and Claims 1-14 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,578,066 to Logan et al. (herein "Logan").

Regarding the rejection of Claim 7 under 35 U.S.C. § 112, second paragraph, Claim 7 is amended to depend from Claim 6, thus, providing proper antecedent basis for each of the terms in Claim 7. Accordingly, Applicant respectfully requests that rejection be withdrawn.

Applicant respectfully traverses the rejection of Claims 1-14 under 35 U.S.C. § 102(e) as anticipated by Logan.

Amended Claim 1 is directed to a domain name system inquiry apparatus that includes, *inter alia*, request receiving means for receiving a domain name inquiry request from a client. The domain name inquiry request is a domain name inquiry sent to at least one domain name system server. The request receiving means also stores a start time of the domain name inquiry request. The apparatus also includes request responding means for selecting a domain name system server corresponding to a domain name inquiry response to the domain name inquiry request. The selection is based at least on the start time of the domain name inquiry request. The request responding means also sends the selected domain name inquiry response corresponding to the selected domain name system server to the client. Independent Claims 3, 5, 6, 8, 10, 12 and 13 include similar features.

In a non-limiting example, Figure 1 shows a domain name system inquiry apparatus that includes a request receiving section 1 (e.g., request receiving means) that receives a domain name inquiry request from a client to be sent to at least one domain name system server. The request receiving section 1 also stores the start time of the domain name inquiry request in a temporary inquiry processing table, as shown in Figure 8. Each row in the temporary inquiry table includes information regarding the domain name inquiry sent to each of the at least one known domain name servers, including a server information group table with the address of each domain name server (i.e., domain name server IP address¹) and a failure counter. In addition, the temporary inquiry table includes the start time of the domain name inquiry sent to each domain name server.²

Figure 3 illustrates a possible embodiment of the claimed invention that sends domain name inquiries to two domain name system servers.³ The domain name inquiries are sent to the two domain name servers at inquiry request start times CT1 and CT2, respectively, as shown in the example of Figure 9. The apparatus evaluates the responses to these inquiries from the domain name system servers and selects one appropriate domain name inquiry response corresponding to one domain name system server based at least on the failure counter and the domain name inquiry start time. For example, domain name inquiry responses that are received more than a predetermined amount of time after the domain name inquiry start time are excluded from consideration.⁴

By storing a domain name inquiry start time, this apparatus advantageously distinguishes between the known domain name servers and selects an appropriate domain

¹ The address of the DNS server is an IP address, for example according to IPv4, as discussed in the specification at page 15, lines 8-12.

² Specification at page 14, lines 18-24.

³ Specification at page 36, lines 8-13.

⁴ Specification at page 24, line 17, to page 25, line 8.

name server,⁵ even when there are plural domain name server trees each having a domain name server root server with a non-unique IP address.⁶

Applicant respectfully submits that Logan does not teach or suggest means for selecting a domain name server based on a start time of a domain name inquiry. Logan describes a method of balancing a load between redundant internet data servers (i.e., virtual IP-servers or VIPs).⁷ Each of the redundant internet data servers store redundant data and Logan's system is used to balance the load between those redundant internet data servers to reduce overall data response time or to minimize cost.⁸ In particular, Logan indicates that when a user asks a domain name server to provide the IP address of a Universal Resource Locator (URL), for example "www.alteon.com," the domain name server selects one of the plural redundant internet data servers based on various selection criteria and sends the IP address of the selected redundant internet data server to the user. Logan indicates that the selection criteria may include a response time of the redundant internet data server. In other words, Logan describes a domain name server that selects one of the available redundant internet data servers that store data for a particular URL when responding to an IP address request for that URL, and indicates that the selection may be based on a response time of the data server.⁹ Thus, Logan does not disclose or suggest selecting a domain name system server at all, but instead uses a domain name server to select from redundant data servers when performing an IP address lookup. Hence, Applicant submits that Logan does not teach or suggest "selecting a domain name system server," as recited in amended independent Claims 1, 3, 5, 6, 8, 10, 12 and 13.

Further, Logan indicates that one of the redundant internet data servers may be selected by the domain name server based on an elapsed response time of each redundant

⁵ Specification at page 5, line 24 to page 6, line 4.

⁶ Specification at page 4, line 14 to page 5, line 21.

⁷ Logan at column 3, lines 40-45, column 11, lines 51-61-64, and FIG. 1.

⁸ Logan at column 11, lines 63-67.

⁹ Logan at column 3, lines 40-45.

internet data server, as calculated from a start time and an end time of a health check to each redundant internet data server. However, Logan only describes selecting from between plural redundant data servers and does not indicate selecting a domain name system server based on an elapsed response time of a domain name inquiry request (e.g., domain name address lookup). Thus, Applicant respectfully submits that Logan also does not teach or suggest “request responding means for selecting a domain name system server . . . corresponding to the domain name inquiry response to said domain name inquiry request based at least on . . . the start time of the domain name inquiry request,” as recited in amended independent Claims 1, 3, 5, 6, 8, 10, 12 and 13.

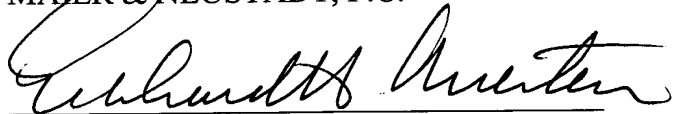
In addition, Logan does not describe sending a selected domain name inquiry response corresponding to a selected domain name system server to a client. Logan only discloses sending an address of a selected redundant data server to a client. Hence, Applicant respectfully submits that Logan does not teach or suggest “sending the selected domain name inquiry response corresponding to the selected domain name system server to said client,” as recited in amended independent Claims 1, 3, 5, 6, 8, 10, 12 and 13.

Accordingly, Applicant respectfully submits amended independent Claims 1, 3, 5, 6, 8, 10, 12 and 13, and claims depending therefrom, are allowable.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)

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